

BRAZOS RIVER, TEXAS.

LETTER

FROM

THE SECRETARY OF WAR,

TRANSMITTING,

With letter of the Chief of Engineers, report of a preliminary examination of Brazos River, Texas, from its mouth to the town of Richmond.

DECEMBER 19, 1892.—Referred to the Committee on Rivers and Harbors and ordered to be printed.

WAR DEPARTMENT,
Washington, December 17, 1892.

SIR: I have the honor to inclose herewith a letter from the Chief of Engineers, dated December 15, 1892, together with a copy of a report from Maj. Charles J. Allen, Corps of Engineers, dated December 7, 1892, of a preliminary examination made by him in compliance with the provisions of the river and harbor act of July 13, 1892, of Brazos River, Texas, from its mouth to the town of Richmond.

Very respectfully,

S. B. ELKINS,
Secretary of War.

The SPEAKER OF THE HOUSE OF REPRESENTATIVES.

OFFICE OF THE CHIEF OF ENGINEERS,
UNITED STATES ARMY,
Washington, D. C., December 15, 1892.

SIR: I have the honor to submit the accompanying copy of report, dated December 7, 1892, by Maj. Charles J. Allen, Corps of Engineers, of the results of a preliminary examination of Brazos River, Texas, from its mouth to the town of Richmond, provided for by the river and harbor act approved July 13, 1892.

The improvement of the mouth of the Brazos River is in the hands of a corporation, the Brazos River Channel and Dock Company, with authority to extend its works of improvement as far into the mainland between the banks of the Brazos River as may be necessary to reach a

place that will afford security from storms, swells, cyclones, and tidal waves.

Maj. Allen states that the river from Richmond downstream to the point to which the Brazos River Channel and Dock Company intends to extend its works should be classed as worthy of improvement by the General Government, provided the cost of improvement, to be determined by full survey, estimated to cost \$2,500, be not out of proportion to the extent of commerce to be benefited.

The Division Engineer, Col. C. B. Comstock, Corps of Engineers, is of opinion that the river below Richmond is worthy of some degree of improvement by the United States, and in this opinion I concur.

Very respectfully, your obedient servant,

THOS. LINCOLN CASEY,
Brig. Gen., Chief of Engineers.

Hon. S. B. ELKINS,
Secretary of War.

PRELIMINARY EXAMINATION OF BRAZOS RIVER, TEXAS, FROM ITS MOUTH TO THE TOWN OF RICHMOND.

UNITED STATES ENGINEER OFFICE,
Galveston, Tex., December 7, 1892.

GENERAL: I have the honor to submit the following report of a preliminary examination of the Brazos River, Texas, from its mouth to the town of Richmond, a distance by river of about 102 miles, made in accordance with the requirements of section 7 of the river and harbor act of July 13, 1892.

A preliminary examination of the Brazos River from its mouth to Waco, a distance of about 430 miles, was made in 1891, in compliance with sections 17 and 18 of the river and harbor act of 1890. The report thereon is published in Ex. Doc. No. 63, House of Representatives, Fifty-second Congress, first session. In that report the opinion was expressed that the river from its mouth to Waco was not at present regarded as a stream that should be improved by the General Government, and largely for the reason that an improvement would require the construction of locks and dams for a long distance below Waco and that the cost of improvement would be beyond all proportion to the resulting benefit to commerce. The reports in that executive document also refer to the fact that the improvement of the mouth of the river is in the hands of a corporation authorized to charge and collect tolls. That corporation has authority to extend its work of improvement as far into the mainland between the banks of the Brazos River as may be necessary to reach a place that will afford security from storms, swells, cyclones, and tidal waves.

The same report also referred to the connection between the Brazos River and West Galveston Bay by a canal owned and controlled by a private corporation, the Columbia Transportation Company, which has the right to collect tolls from vessels using it. The entrance to this canal from Brazos River is about three-quarters of a mile above the original river mouth.

Produce seeking the Gulf of Mexico by water from Brazos River and *vice versa* must therefore pass through channels controlled by private corporations.

The principal shipping points below Richmond are: Velasco, 5 miles

from mouth; Brazoria, 29 miles from mouth; Columbia, 37 miles from mouth; Bolivar, 49 miles from mouth.

The Galveston, Harrisburg and San Antonio Railway crosses the river at Richmond, connecting that place with Houston and Galveston. Buffalo Bayou, on which Houston stands, connects with the Gulf of Mexico through San Jacinto River and Galveston Bay.

The Gulf, Colorado and Santa Fe Railway crosses the Brazos at a point about 15 miles below Richmond, thence passes through Richmond, connecting it with Galveston.

A branch of the International and Great Northern Railway connects Columbia and Houston and the same branch also connects with Velasco through the Velasco Terminal Railway.

The bridge of the Galveston, Harrisburg and San Antonio Railway has a clear width of more than 200 feet between channel piers and is at an elevation of about 45 feet above low water. The county bridge, which crosses a short distance above the railway bridge, has about the same elevation and width between piers.

The bridge of the Gulf, Colorado and Santa Fe Railway, about 15 miles below Richmond, has a width between channel piers of 248 feet and is at an elevation of about 48 feet above low water.

None of these bridges have drawspans.

There are no shoals reported between the mouth of the river and Columbia, but between the latter point and Richmond there are said to be a number of them. Snags, in greater or less numbers, however, are found between the mouth and Richmond.

There are three steamers navigating the river from Bolivar down, as against one so employed last year. These boats belong to the Columbia Transportation Company. The present annual traffic, as given by that company, is as follows:

Cotton	bales..	6,000
Cotton seed	sacks..	30,000
Sugar	hogsheads..	600
Molasses	barrels..	1,200
General merchandise and miscellaneous freight	tons..	5,000

The greater part of which passes through the canal mentioned.

The lands bordering Brazos River are exceedingly fertile and productive, but the farmers along the river, especially so above Bolivar, labor under the disadvantage of having to haul their products to railroad points separated by long distances on account of the precarious navigation of the river above Columbia, due to obstructions, largely snags, in the channel.

It is claimed that an improvement of the river below Richmond would be followed by an increase in number of steamers and barges navigating the stream, thus facilitating the shipment of the products of the country.

Taking all the facts into consideration, it appears that the producers of the valley of the Brazos River within the limits examined should have some relief in the shape of increased facility for water shipments, and I am therefore of opinion that the river, from Richmond downstream to the point to which the Brazos River Channel and Dock Company (the corporation mentioned as having been authorized to improve the mouth of the Brazos River) intends to extend its works inland, should be classed as worthy of improvement by the General Government, provided the cost of improvement, to be determined by full survey, be not out of proportion to the extent of commerce to be benefited thereby. A full survey will cost \$2,500.

The preliminary examination required by the act of 1892 was made in October last by First Lieut. William C. Langfitt, Corps of Engineers. His report, which is complete and valuable, and to which attention is respectfully invited, is herewith. Many of the items in my own report are taken from it.

Very respectfully, your obedient servant,

CHAS. J. ALLEN,
Major, Corps of Engineers.

Brig. Gen. THOMAS L. CASEY,
Chief of Engineers, U. S. A.

(Through Col. C. B. Comstock, Corps of Engineers, Division Engineer, Southwest Division.)

[First indorsement.]

U. S. ENGINEER OFFICE, SOUTHWEST DIVISION,
New York, December 12, 1892.

Respectfully forwarded to the Chief of Engineers.

I concur in Maj. Allen's opinion that the Brazos River below Richmond is worthy of some degree of improvement by the United States.

C. B. COMSTOCK,
Colonel of Engineers, Bvt. Brig. Gen., U. S. A.
Division Engineer.

REPORT OF LIEUTENANT WILLIAM C. LANGFITT, CORPS OF ENGINEERS.

UNITED STATES ENGINEER OFFICE,
Galveston, Tex., November 8, 1892.

MAJOR: I have the honor to submit the following report on a preliminary examination of the Brazos River from its mouth to the town of Richmond.

A survey of this river was made in 1874 from Waco to its mouth, and report, printed in the Annual Report of the Chief of Engineers for 1875, Part I, pp. 929-941, made thereon.

In H. R. Ex. Doc. No. 63, Fifty-second Congress, first session, is printed a report of a preliminary examination of this river from its mouth to Waco, a distance by river of 430 miles. The portion now under consideration is less than one-fourth this distance, and is that part of the river which is most susceptible of improvement and which has the least rail facilities.

From the above reports and my personal visits to the river, the following description of it is compiled and is sufficiently accurate for the purpose:

The distance from the mouth of the Brazos to the town of Richmond is about 102 miles by the river. From the mouth to Brazoria, a distance of 29 miles, there are a considerable number of snags in the river which, under a large or night navigation, would be dangerous, but which, by the present limited navigation, are easily avoided. From Brazoria to Richmond, a distance of about 73 miles, the snags become more numerous and increasingly dangerous to navigation on account of the decreasing width of river.

There are no shoals between the mouth of the river and the town of Columbia, a distance of 37 miles, which would obstruct any ordinary river navigation. Between Columbia and Richmond I am informed that there are such shoals, but of their number and character no definite information could be obtained.

The banks of the river are high and easily eroded, nearly every convex bank showing recent signs of the action of the current. They are also wooded and the caving parts furnish a new supply of drift and snags every high water.

Near its mouth the river is about 600 feet wide at low water; at Richmond at the same stage it is from 150 to 175 feet wide.

About 15 miles below this town the Gulf, Colorado and Santa Fe Railway crosses the river by a bridge having a clear width between channel piers of 248 feet and a height above low water of 48 feet. At low water the river is entirely between these piers. At the town of Richmond the Galveston, Harrisburg and

San Antonio Railway crosses the river and a short distance above this bridge is a county bridge. Both of these bridges have a clear width between channel piers of over 200 feet and are about 45 feet above low water. At low water the river is entirely between the piers. None of these bridges have draw spans.

It is claimed by some of the river men that the removal of the snags that abound in the river between the mouth and Richmond would enable them to navigate it at ordinary stages as far as the Gulf, Colorado and Santa Fe bridge mentioned above. This, however, is very doubtful, as no boat has ascended the river above Bolivar (49 miles from the mouth) for many years.

The improvement of the bar at the mouth of the river is in the hands of a private corporation authorized to make that improvement. This corporation claims control over the river for a distance of 12 to 14 miles from its mouth and proposes to make at least two cut-offs in that distance. It has constructed jetties at the mouth of the river for the improvement of the bar and has the right to collect tolls from all vessels entering the river between them. It has purchased considerable lands on both sides of the river near the mouth and has laid out and started the town of Velasco, about 5 miles above the mouth. Some wharves and shipping facilities have been constructed by it here with the object of making the town a large and flourishing seaport, but at this writing the town has, perhaps, not over 2,000 inhabitants, and no facilities, such as compresses, etc., for handling the cotton and other crops that are grown on the Brazos bottoms. Several ships have been loaded this season with cotton and oil cake and others will probably be loaded, but the cargoes all come from the compresses and mills of Houston, with which there is direct rail connection. The commerce of these ships or other vessels which may bring supplies for the work of the company or for the town of Velasco from outside points is, of course, not to be included in determining whether the river is worthy of improvement by the General Government at this time.

Improvement of the Brazos from Waco to the mouth was contemplated in the summer of 1890 by private enterprise, but beyond a "preliminary survey" of the river from Waco to Richmond I have not been able to learn that they have done anything.

About 1858 a small canal was opened between the Brazos and West Galveston Bay, thus giving inland water communication with Galveston for small vessels. The owners of this canal have the right to charge tolls on vessels passing through it.

It is thus seen that all commerce entering the river either from the Gulf or through the canal is subject to toll.

The present commerce of the river is carried on by means of three stern-wheel river boats, two of small size, the other larger. One of these boats makes two round trips weekly between Galveston and Brazoria or Columbia; the second makes one round trip weekly between the same points; the third is used to collect freight between Columbia and Bolivar, and bring it down to Columbia, where it is taken by one of the other two boats.

The present annual traffic, as given by the Columbia Transportation Company, which owns all the boats just mentioned, is as follows: Cotton, 6,000 bales; cotton seed, 30,000 sacks; sugar, 600 hogsheads; molasses, 1,200 barrels; general merchandise and miscellaneous freight, 5,000 tons. A very small per cent of this last item consists of freight between Velasco and Galveston, the remainder being carried between other points on the river and Galveston. It all passes through the canal mentioned above, and which is owned by members of the transportation company.

It is stated by a member of this company that the traffic is increasing along this portion (from Bolivar down) of the river, principally for two reasons, of which the first one is the construction of better roads from the river west toward Matagorda County and the bridging of the streams that these roads cross. The second is that several of the large plantations near the river, which, when held as one holding, were not cultivated at all, or but slightly, have in the last year or two been divided up into small farms and sold to settlers, thus increasing the cultivated acreage. This process is expected to continue in the future, as is also the development of better roads. It is estimated by parties familiar with the circumstances that not 50 per cent of the lands that were cultivated prior to the late war are now cultivated, and it is these idle lands that are being bought in small farms by incoming settlers. In addition to these lands there is a very large acreage of timbered land bordering the river which will in time be cleared for cultivation, and which will increase the traffic of the river both by the lumber trade that will develop and by the crops cultivated on the cleared land. A

member of the transportation company informed me that his boats had carried out during the past year a considerable amount of cedar lumber and that contracts were in force for other large amounts.

The increase in traffic during the past year is evidenced by the fact that now three steamers are employed over the same stretch of river (from Bolivar down), where last year there was but one.

Above Bolivar the boats do not now ascend on account of the presence of snags in the river, which render it impassable. The commerce of the river above that point is, therefore, at present nothing. What commerce would develop were the river rendered navigable as far as Richmond is very hard to predict. There are many large plantations along this portion of the river which at present do all their business by rail, and I am informed that a large part of it is done with Galveston. From Richmond and other points in the same county there are shipped annually about 10,000 bales of cotton. It is claimed by the residents of the town that the freight, exclusive of cotton, in and out of Richmond approximates annually \$2,000,000, and that a large part of this freight and of the cotton would seek the river were boats enabled to ascend to the town. Below the town are several large sugar plantations. On one of these there are produced annually about 5,000,000 pounds of sugar, and it has upon it a refinery with a daily output of 150,000 pounds. I am informed that it is the intention to double the capacity of the refinery in the near future. Most of the raw sugar for the refinery is brought from Cuba to New Orleans and from there by rail. There are also other refineries besides this one, but of smaller capacity. It is claimed by the owners that were the Brazos opened so that boats could ascend to their plantations they could obtain their raw sugar and other supplies at much cheaper rates of freight. The same development of small farms is also expected along this portion of the river as described above for the lower portion.

In any case it is expected by those interested that the existence of an open river will act as a regulator of railroad freights and make them lower. It is stated that freight rates from points already reached by the river are from 30 to 50 per cent cheaper than they are where this condition does not exist.

Of the fertility of the lands adjoining the river there can be no question, being noted among the most fertile in the State.

Most of the commerce is carried on during only a portion of the year, from say September to March; that is, during that portion of the year when the river is not generally at its low-water stage, thus requiring a less amount of improvement to satisfy the needs of commerce.

From my knowledge of the river I regard a survey as necessary to enable an estimate to be made with any approach to correctness of the probable cost and amount of improvement needed.

As stated above, both of the outlets of the river are in the hands of private corporations and vessels passing through them are subject to toll. One of these corporations claims control over the river for 12 to 14 miles from its mouth. In view of these circumstances it would be much better that this control of the lower river and the right to collect toll of vessels passing through the canal already mentioned should be extinguished before the General Government should enter on an extensive improvement of the river.

Appended are two letters giving information about the river and its commerce, and from which some of the data given above have been taken.

Very respectfully, your obedient servant,

WM. C. LANGFITT,
First Lieutenant, Corps of Engineers.

Maj. CHAS. J. ALLEN,
Corps of Engineers.

LETTER OF MR. P. E. PEARSON AND OTHERS.

RICHMOND, TEX., November 2, 1892.

DEAR SIR: In accordance with our promise to you while here a few days prior to date hereof, we furnish you with as much information as is practicable under the circumstances.

The average depth of water between Richmond and Bolivar is about 3 feet at low tide. There are many places where the water at low tide is 10 and 12 feet in depth between the points named.

The obstructions consist of sand bars and snags. There are only about four or

five sand bars to be removed. The amount of snags and drift to be removed can not be stated with any degree of accuracy; neither can we speak advisedly as to the extent of the sand bars to be removed, but our best information is that they are not of much magnitude or would entail any great expense in their removal.

As to the produce, etc., shipped from this point: There is annually shipped about 5,000 bales of cotton from Richmond. From points adjacent to Richmond (in this county) there is shipped about the same amount of cotton, which would be handled here if we were provided with transportation by water.

Within the last eighteen months about 40,000 acres of our best prairie lands near Richmond have been purchased and settled upon by small cotton-planters. The result of opening up and cultivation of this vast body of land, together with prospective settlements soon to be consummated, will within the next ten years increase the cotton shipments from this point four fold.

The three sugar farms and refinery near Richmond pay to the railroads for freight charges the sum of about \$30,000 per month. Of this amount Col. Ed. Cunningham alone pays about \$800 per day. He informed us Monday that the capacity of his mill and refinery would soon be increased to such an extent that his freight charges would aggregate the sum of \$1,600 per day. All of these farms are located on or near the Brazos River, not a great distance from the town of Richmond. With the clearing out of the Brazos River the immense freight that now comes by rail to the plantations mentioned would come by water transportation through the Brazos. The amount of freight in and out from Richmond exclusive of cotton annually approximates \$2,000,000.

The Brazos bottom and Oyster Creek lands from the Austin County line on either side of the river down to and below the town of Brazoria embrace as fine a body of cane lands as exists in the world. The development of this vast rich territory has been and is retarded for the want of transportation facilities, which would be afforded by placing the river in navigable condition to the town of Richmond.

If there are any other points upon which you desire information we will gladly respond on request.

Yours, very respectfully,

P. E. PEARSON.
THOS. DYER.
J. H. P. DAVIS.
JNO. M. MOORE.
M. J. HICKY.
A. M. HOLMES.
J. D. BRYANT.
CLEM. BASSETT.

Lieut. WM. C. LANGFITT.

LETTER OF MR. BRANCH T. MASTERSON.

GALVESTON, TEX., *November 4, 1892.*

DEAR SIR: In response to your request to furnish such data as may be obtainable as to the present and prospective traffic on the Brazos River from Richmond to its mouth, I beg to say that the bulk of the freight from Bolivar down is carried by the steamers belonging to the Columbia Transportation Company, and from examination of the freight books and other reliable data a close approximation of the present annual traffic is 6,000 bales of cotton, 30,000 sacks of cotton seed, 600 hogsheads of sugar, 1,200 barrels of molasses, and 5,000 tons of general merchandise and miscellaneous freight.

As near as I can ascertain, there is now less than one-third of the open lands now in cultivation. These open lands comprised large sugar and cotton plantations which were cultivated many years, but were closed out shortly after the late war. These large tracts are being subdivided and sold, and the area in cultivation is increasing. When all these fields are again in cultivation a fair estimate of the traffic would be 20,000 bales of cotton, 90,000 sacks of cotton seed, 5,000 hogsheads of sugar, 12,000 barrels of molasses, and 10,000 tons of merchandise and miscellaneous freight. This estimate relates only to lands that were in cultivation in past years. As the total area that has been cultivated does not comprise one-fourth of the lands suitable for farming, the traffic will increase as farms are opened up.

These estimates do not include the Cunningham and Ellis sugar plantations

or the State plantation, as these and others, from House's sugar plantation on Oyster Creek up to Cunningham's, ship by railroad, being too far from Bolivar, the present upper landing for steamboats, to avail themselves of water transportation, the snags on the Brazos River above Bolivar preventing the navigation to the points near the upper Oyster Creek plantations.

The county of Brazoria has within the past twelve months expended \$50,000 in bridging streams and making and improving the county roads, thus enabling the farmers to get their products to the river. This has resulted even this year in an increase in water transportation, the farmers of Matagorda County hauling to the Brazos River to avail themselves of water transportation freight rates.

Very respectfully,

BRANCH T. MASTERSON.

Lieut. LANGFITT,
Corps of Engineers.

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